MICHIGAN FARMER.

Devoted to Agriculture, Horticulture, and Domestic and Rural Affairs.

NEW SERIES. Perfect Agriculture is the foundation of all Trade and Industry.--Liebig.

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DETROIT HORTICULTURAL SOCIETY.

Mr. Holmes Address-(Concluded.)

Our monthly meetings for business, have usually been but poorly attended.

In order to create in interest in them, and make them profitable to us, and worthy of our attention, I would suggest the propriety of introducing debates, or the reading of some article relating either to Horticulture, or Agriculture, at each of our regular monthly meetings, allowing the speakers to select their own subject Speakers to be appointed by a committee raised for that purpose, so that we may be sure of having, some interesting topic before us at every meeting.

We are sometimes asked what we mean by horticulture, and what objects our society have in view. In answering these questions, I would say, we use the term horticulture in its broadest sense, and include the cultivation of esculent vegetables, fruits and ornamental, also the management of rural scenery for the purpose of utility and embellishment. As for the objects our society have in view, they are, not only to create a taste for horticultural pursuits, but to create also a spirit of emulation among horticulturists in this vicinity, by frequently meeting together and conversing upon the science of horticulture, describing the various fruits, vegetables and flowers, with which we met; what are the best varieties, the best method of cultivation &c. Another method of creating and cultivating this spirit of emulation, is by our exhibitions. These we think are very advantageous, not only to ourselves, but to the public. We there have an opportunity of bringing together, specimens of fruits, flowers, and vegetables from all parts of the state, and comparing one with another, and thereby determining who possesses the best varieties, who are the best cultivators, what varieties do best in different parts of the state &c.

Cultivators have there an opportunity of seeing when and where, they have gone to work wrong. (if they ever have done so) and of course they will make up their minds to go in the old track no longer; but strive to surpass others, and take to themselves the highest premiums at the future exhibitions. And here, gentlemen, let me say in the language of another, that "exhibitions are to Horticulture what museums are to painting and sculpture. It is publicity; It is example! Emulation, light, and sometimes it is glory!

To create exhibitions of horticulture, is to give to that useful and graceful science, the benefit and the great principles of mutuality and of association. It is to open to our country a new road to progress, to enjoyment. A congress of flowers is always pacific!

Horticulture, always so precious in a material point of view, is not less profitable to the philosopher and to the pious contemplator of nature. It developes that religious sentiment by which we recognize the Creator in the perfection of his works."

We are very apt to think our own fruits are the richest, our own flowers the most beautiful, our own vegetables of the best flavor, the largest growth, and the finest grain; and nothing can surpass our own soil, or our own method of cultivation.

Well may we come to these conclusions, when we compare articles of our own raising with those we ordinarily see in our market. It is at our horticultural exhibitions, where we find specimens from all parts of our state; and not only specimens, but the best specimens of our best cultivators; here is where we may make our comparisons and then judge for ourselves, whether we are ahead or behind the age.

Let us strive to excel in fruits, and not think the fruits we are raising are good enough, while we know that far better not only can be, but are raised. Let us not be content with small, dry and tasteless pears; small bitter and wormy apples; sour plums; hard, sour, coarse grained peaches; mildewed and sour grapes; small currants; goosberries &c. While with a little more attention to the selection of the varieties, and a proper attention to the planting and cultivation of them, none can surpass us in raising large, rich juicy and highly flavored fruits.

Do you say your soil is such you cannot raise good fruit? Then find out what soil is best adapted to the kinds of fruit you wish to raise. If you have it not, go to work and make it.

The apple will adapt itself to almost any soil. The pear wants a light, and rich soil. The peach, in order to do well must have a light rich, deep soil and a warm exposure. The plum runs riot upon our clay soil. The grape wants a light, rich soil, with good drainage.

Many of you are probably better acquainted with the culture of vegetables than myself. But I think our markets might be supplied with better vegetables than we generally see there. There is always an abundance there, but a great

portion of it falls far below a medium quality. By some attention to the selection of seed, and by good cultivation, we may have a vegetable market, not to be surpassed in the world. I know there is such an abundance of trash poured into our market, and purchased by our citizens, that it is somewhat discouraging to those cultivators who are ambitious to excel. There are those among us who are desirous of raising and bringing to market none but the very best of vegetables; these persons, if they have not already, will soon find themselves paid for their exertions to do well.

While we are striving to excel in fruits and vegetables, do not let us forget or neglect those gems of earth, the beautiful flowers. Within a range of a few miles from our city, we may cull some of earth's choicest jewels and transfer them, together with such exotics as we may fancy, to our own parterre; thereby ornamenting our beautiful city, and giving it all the attractions of a garden of flowers, and as the north and south winds blow, they will cause the spices thereof to flow out and make glad the heart of man.

Nature has done much to render our city pleasant and beautiful, but art, can do much to ornament it. A dwelling without trees, shrubberry, or flowers about it, is a cold, dreary, unfinished looking place. How cheerless would our streets appear were it not for the taste displayed along their borders, in the shape of shade trees.

There are many fine buildings, in different parts of our city, but how cold and forbidding they would appear, without the relief that is given to them by the shrubbery about them. It indicates kindness. pleasantness, and happiness within. You seldom see an ill natured person cultivating flowers.

When I ask you to cultivate fruits and flowers, I do not ask you to make your garden your god. For if you do this, you may see the time when you will cry out in the words of that gardener of olden times; "I planted me vineyards, I made me gardens and orchards, and I planted trees in them of all kinds of fruits, I made me pools of water, to water therewith, the wood that bringeth forth trees. Then I looked on all the works that my hands had wrought, and the labor that I had labored to do; and, behold, all was vanity and vexation of spirit."

But I ask you to plant shade trees for your own and the public good. Plant fruit trees that you may enjoy the fruits of your labor. Cultivate flowers, that you may experience the kind, the genial influence, that cultivators of flowers always experience. And last, though by no means of the least importance, cultivate vegetables for culinary purposes.

In the production of the best varieties of all, any of these things, your vanity may be somewhat excited, but you will experience less vexation of spirit, then if you produce only the poorest, and in that case, have the mortification of seeing your neighbor bearing away the society's highest price, when you might easily have gained it yourself.

Another letter from Hon. B. G. Barker.

For the Michigan Farmer.

PLYMOUTH Mich. April 14th 1848.

FRIEND ISHAM.—Again I trouble you with a brief letter. The subject of agriculture has taken deep root in my mind. The science is one in which I take great pleasure. It is so very interesting and useful, (innocent withal) that I want every one, to get a taste for it.

A new era in this science commenced upwards of thirty years ago and it has kept on developing its beauties, and extending its great and beneficial practical results to the people of the United States, ever since that time. It has come forth with rapid strides, and no doubt but it will continue to advance, for the benefit of mankind for coming ages. And happy am I in observing, that the first States and the first statesmen in the Union, are now bending their efforts and their talents, to snch a source of national power and greatness. "The light of Europe is before us. The sun of science illuminates our paths." The wonderful advances which have already been made in agriculture, will result in a magnificent acquisition to the age in which we live, and a benefit of the deepest moment to posterity. Accompanying this letter, I send you one written by my late friend and intimate acquaintance, the celebrated Doctor Samuel L. Mitchell, formerly of the city of New York. I am well aware that it will be read with great pleasure, by many of your readers. I am knowing the fact that a good many of his former intimate acquaintances reside in this region, and no doubt they will feel highly gratified, to come across anything which came from the pen and head, of so eminent a man.

I remain Dear Sir yours
with high regard
B. G. BARKER.

Letter from Sam'l L. Mitchell, L. L. D.

The following is a part of the letter spoken of by Judge B. in the above. It cannot be otherwise than interesting. Dr. Mitchell was one of the great luminaries of the age in which he lived. His fame is world-wide. Kings and Emperors did him homage. The letter appears to have been called forth by the proposition of the Governor to establish a board of agriculture in the State of New York. We regret that we cannot find room for more of the letter in our present number. It is addressed to Charles Haynes Esq. and bears date, New York City, Jan. 10th

1819. We may give the remaining portion another time.

"It deserves to be known to our state and nation, that the actnal government of France is incessantly on the watch to procure specimens of the natural productions of North America to furnish and enrich the Royal Museums of Paris. The enterprizing and dilligent minister in concert with the Academy of sciences, and in furtherance of the view of his government, is by his agents, perpetually employed in exploring our country, and in transmitting across the ocean the articles he procures; if I am not much mistaken the metropolis of France will soon possess a better collection of Fredish production than any place in the United States. Why can there not be a similar house of science at home? A just regard for ourselves, would certainly lead us to acquire a better knowledge of the country we inhabit than is possessed by other people. My communications with men of the highest intelligence, have long since satisfied me of the zeal with wich quadrupeds, birds, organic remains, and every thing is procured and exported.

After these disclosures, a very few out of a great many, I frankly confess to you, after all, that I am willing to transfer my share in transactions to a public institution, as soon as the board which you and his excellency contemplate, shall be constituted. At Albany the seat and centre of useful works and important operations, a great thoroughfare from east, west, north and south, might be the office for the receipt and distribution of all manner of useful intelligence, concerning land and its improvement, concerning labor and its renewal, concerning produce and its consumption, concerning the introduction of new plants and animals, of new modes of culture and employ, and finally concerning the state, and similar institutions beyond its limits.

The difficulties which present themselves to me, in organizing an institution surpassing for such a people as we are, every thing done by Octavius the August, Leo the Tenth, Louis the Fourteenth, arise from the following sources.

* * * * * * *

The danger of its failing through the deficiency of great funds to endow the society in the first instance, and of large appropriations to support it afterward. My own opinion is, that it will be endowed at once, with the Governor of the state for a visitor to examine how far the trust is observed or violated.

The danger of miscarriage, from the indifference or laziness of the members. There will be so much employment for a long time to come that there can be no pretence for languor, or inaction. I should suppose the daily arrival of letters, messengers, natural specimens, models of tools and utensils, books, plans, drawings, and the numberless other matters which will be brought to such a place, would give them abundant employment. The answering of queries, the analyzing of articles, the explanation of models. the attendance of citizens who call to see the museum and the preparation of abstracts for general information, are serious employments, and require great industry. The branch at the city of New York, will perform a large proportion of the labor, at least of that part which depends upon navigation, coastwise, and to foreign countries.

The danger arrising from an opposition to the plan, by the farmers themselves. It seems hitherto to have been suspected that the establishment of a board of agriculture was an admission that farmers did not understand their own affairs, and were not to be permitted to manage them in their own way. This is totally a mistaken idea. There is no intention to control farmers in the direction of their concerns. But it is meditated to afford them every species of information which the board can collect, relative to new and improved modes of tillage, new varieties of grain, new unitensils and implements, with the most complete intelligence which can be procured about land, labor, produce, statistics, botany, mineralogy, soils, manures, and the associated subjects.

In short, the board is expected to perform services highly important to the public interest and honor, which are not provided for by colleges or schools of any kind, or in any other way. And I think their magnitude, number, and nature eminently worthy of investigation by a society for internal improvement, countenanced by the legislature.

I have the pleasure to assure you of my high esteem and regard, SAM L. MITCHILL.

Detroit Horticultural Society.

REGULAR MEETING. April 11th 1848.

G. W. Lamb, Warren Isham and E. D. Lay were elected members of the society. Jabez Warner, and E. K. Gilbert were proposed for membership.

B. Hubbard read an interesting essay on the subject of horticulture, in which many valuable suggestions were made. On motion, a copy of the same was requested to be placed upon file.

M. H. Webster was requested to prepare a paper to be read before the society at its next regular meeting.

B. Hubbard resigned his place as a member of the committee on fruits. Jas. Dougall was elected to fill the vacancy.

The first exhibition for this season was ordered to be held on Tuesday May 16th next. A committee was appointed to procure a suitable place for the meetings, and exhibitions of this society. W. B. Wesson and T. H. Hinchman were appointed said committee.

T. H. HINCHMAN Sec's pro tem.

For the Michigan Farmer.

Price of Wool—Wool Depots.

Mr. Editor.—Within a few years, the business of wool growing has increased in our state with rapid strides, until as an article of export it stands next to wheat in amount and importance. The last year, nearly a million of pounds were exported. There can be no doubt that with our facilities for its production, and its adaptation to uniting with that other prominent pursuit of the western farmer—wheat growing—this staple is destined to much farther increase, and in a ratio greater than that of the advance of our population. Every thing, therefore, pertaining to this great interest, has an important bearing on the welfare of agriculture.

Since wool has become an article of export, the producer, has in almost every case, failed to realize for his wool any where near its fair market value. This has resulted from several causes. The business of buying has been in the hands of country merchants, and others not competent judges of the article, who, not being able to discriminate nicely between the different grades, have adopted the safe rule of setting their price *low enough*. The wool has not been well sorted, according to quality, several different grades being put up in the same bale; and hence the manufacturer has been compelled, to buy much that he did *not* want, in order to get what he *did*. Of course, *he* could not afford to give the wool dealer so much by many per cent, as though he could have bought just what he wanted and no more. The wool has generally been exported and sold in small lots, on which the chances for an advantageous sale were less than if the quantity had been such as to draw the attention of heavy manufacturers. Much of it no doubt has passed through the hands of another set of buyers before reaching the factory. It is needless to say some of its value must have stuck to their fingers—they bought it for "nothing else."

Now no one can blame the wool dealer. He embarks his capital in this, as well as any other business that offers a round profit; and under the disadvantages just named, it is easy to see that he cannot afford, were he so disposed, to give as much as might be commanded under more favorable circumstances. Still the evil is not the less a crying one to wool growers, and I am glad to see they have become pretty generally wide awake to the fact.

To avoid the losses sustained under the present system, and to put the profits into the pocket of the farmer instead of the speculator, the simple and only remedy is, to throw the wool into depots under skillful and faithful managers, whose business and interest it is to market it to the best advantage. Here large quantities are accumulated,; it is carefully sorted into different grades, marking the nicer shades of quality—it attracts the attention of manufacturers, each of whom is sure to find in one of the divisions the kind of wool adapted to his fabrics—it is sought in large qnantities, thus saving the expense of sending agents about the country to pick up here and there small lots, and it is bought at a place from which it is easily and cheaply sent to its destination.

Considering the manifest advantages of this method, it is not surprising that wool should have brought at depots vastly more than the price realized elsewhere, nor is it surprising that the managers can act as the go-betweens of the producer and the manufacturer, for the trifling charge which is demanded. It is to be hoped that the wool growers of Michigan will avail themselves of the opportunity which the establishment of the Detroit Wool Depot affords them of selling their wool at full prices. The good character and competency of the manager are vouched for by many of our citizens, to whom he has been long known, and no doubt can be entertained that the business will be so conducted as to merit the public approbation.

A FRIEND TO WOOL GROWERS.

Detroit, April 10th 1848.

From the Boston Cultivator.

Agricultural Science.

Since scientific researches have established the fact of the universal presence, and indispensable use of some ten or eleven mineral, or inorganic substances, in the composition of plants, grains, &c., used as food, for men and animals, the great importance of the phosphates, as they are termed, that is, phosphoric acid, in combination with lime, potash, soda, magnesia, &c., have been much better understood and appreciated in England, than by the farmers of this country.

The ship loads of bones annually imported into Great Britian, the care with which they are collected and saved there, and the millions of dollars annually expended by the English farmers in the purchase of bones for manure, fully establish this fact.

A large per centage of the fertilizing principle of guano is due to the phosphates it contains and so far it is a substitute for bone dust. Notwithstanding, bone manure was thirty per cent dearer during 1844 and 1845 than in the previous year. While in this country, that veteran in the cause of American Agriculture, Col. Skinner, of New York says, in his first No. of

the "Farmer's Library." There are thousands of farmers in the United States who never even yet have seen or read of *bone dust* as a manure. He also says, when Mr. Hornby erected his establishment in this city about nine years since, he was under the necessity of making a gratuitous distribution of the material. Farmers consented, with suspicious hesitation, to apply it—but the next year he sold 8,000 bushels, and thence the demand rapidly increased, recommended by its portability and its power, and bones that sold at first, at five cents a bushel, went up to thirty.

Among the most important inorganic bodies in the food of animals, and of those which are required in the largest quantity, is phosphoric acid, lime and magnesia, these are required for building up the bony frame works of the animal: from these substances, about one half the weight of fresh bones are manufactured in the great labaratory of nature.

All our cultivated plants contain phosphoric acid and lime, and from the plants, grains, &c., upon which they feed, all animals derive the entire substance of their bones. This same phosphoric acid and lime, therefore must exist in the soil, in which the plants grow, or they will neither thrive themselves, nor be able properly to nourish the animals they are destined to feed.

All newly cleared good lands contain in themselves, all those substances necessary for perfecting good and perfect crops of grain grass &c. From this fact newly cleared pastures are much better adapted for rearing cattle, sheep and horses, than old and long grazed ones. One half the entire bones, is phosphate of lime—it also enters into the muscle, (lean meat) at the rate of about 2 1-2 per cent, and in every ten gallons of milk there is 3-4 of a pound of saline matter much of it in combination with phosphoric acid.

The reason of this will be readily understood milk is designed for the *entire* sustenance, for a given period of time, for the young of every species of mammals, and to be for this purpose it must (as it actually does) consist of a greater variety of the elements absolutely requisite to the continued growth and healthy condition of young animals, than any other food known. Many substances used singly as food for a length of time, even any of those esteemed most nutritious, would probably destroy the human frame.

Now the quantity of phosphates removed from old pastures in the bone, muscle, milk, urine, &c., of the animals reared upon them have unquestionably, rendered them more deficient in phosphoric acid, than in any other substance—feed may continue to grow—but it lacks one of the important elements, phosphoric acid. Instinct points out to cows when in milk, and young cattle in a growing state where this deficiency can in a measure be supplied, that is by attempting to eat bones, a very common occurrence here. Some persons suppose that it is salt in the bone that prompts this unnatural appetite, but there is no salt in a bone—this *longing*, arises from another cause than the want of salt; 'tis for the want of chlorine and soda, (common salt) in their food that causes them to eat salt—or for lack of that, to lick with their tongue, old barrels that have been used for salting meat or fish.

This one great agricultural axiom, "ought to be engraven on the thresholds and lintels of every farm house in the country," that old bones can again be worked up into new ones, as well as old gold and silver coin, can into new eagles and dollars, and with a greater profit.

L. Bartlett.

Warren, N. Y. February, 22, 1848.

Suggestions to Farmers.

I sometimes fancy to myself, when I hear persons who live on the rich and fertile prairies of the west, praise the luxuriance of their soil, and boast of the bountiful crops they yield with little labor, that they ought to be regarded somewhat as we now look upon those early settlers in the Mohawk valley, who, it is said, were in the habit of carting the manure made upon their lands to the river, and throwing it in, for fear, that should it remain, their lands would become too rich.

In their wisdom, supposing their lands could never be exhausted, they continued to plow the same fields, until at last "a change came o'er the spirit of their dreams," and they found to their cost, that the lands they supposed inexhaustibly fertile, had become sterile and unproductive; and such I think will be the result of the present system of cultivation pursued by our western friends. Chemistry shows us that by taking a succession of crops off from the same ground one year after another, without any return to it, the inevitable effect must be ultimately, that it will lose its fertility. The lands of our country, especially the richer portions of it have quite too commonly met with this usage. A few years since it was not unfrequently remarked by our farmers, that they formerly received good crops from particular portions of their lands, but that then they could not get crops from the same ground that would pay the trouble of cultivation. Something, they said, must be wanting in the soil, but what they did not know. Chemistry has solved this problem, and it is now beginning to be understood by them, that their soil must be fed with proper food as well as their cattle if they would have it productive; and that true economy consists in highly cultivating smaller quantities of land, by deep plowing and manuring, rather than running over a large quantity of land with slight tillage.

"A little farm well tilled. A large barn well filled.
A little wife well willed, Give me, give me."

This lesson is one our farmers have been slow to learn. While it has been their practice in

cultivating their gardens to resort to thorough tillage, and, as a consequence, they produce more from them than from any other equal portion of their land; in the raising of field crops, the hint thus given them has been entirely neglected. It is supposed that the fruit and kitchen gardens in the vicinity of the city of London, occupy 20,000 acres of land, and that the produce of this land is sold for over $7,000,000, while in the most favored portions of farming lands in our own country, $500,000 would generally be considered a good product for the same quantity of land. Knowledge and experience will in time correct the errors into which our farmers have fallen in regard to cultivating their lands, and even now I think I see a bright prospect for the future, in the formation of agricultural associations, in the circulation of agricultural papers, and other periodicals; in the improvement of the farm stock; in the improved tillage and drainage of lands; and above all, in the increased attention given to the saving and use of manures. When these come to be well understood and practised, we may confidently expect to see farms of 40 and 60 acres producing more, and returning a better and more certain profit to the farmer, than farms now do which contain many additional acres.

ONEIDA.

Cultivator.

N. Y. Farmers Club.

Dr. Underhill of Croton Point.—For some twenty years or more past, Europe has had agricultural colleges, schools, experimental farms, as well as numerous writings, by means of which a great revolution has been effected in favor of agriculture, so marked by the character and amount per acre, that the cause is beyond all possible question. The increase is owing alone to increasing knowledge. The intellectual fire has been infused, and, as in other arts and sciences it burns brightly. May we not have one agricultural college whose light shall be diffused throughout our country? Let us begin and let the science of agriculture be engratted also upon every school in the land. Let it be what it ought to be, capable of attracting to its studies and its practice the sons of our most talented and wealthy citizens.

Mr. Manice of Long Island. We are told that the Osage Orange forms a good hedge. Not so on Long Island, I have tried it for seven years and I find that it dies out in spots It will not do, and I hope our people may not be so misled as to try to make hedges of it. I have tried also the New Castle Thorn, but that is now attacked by some insect which threatens to destroy its utility for hedges.

Jas. P. Allaire and Miss Johnson presented to the club, cuttings of the Sugar Grape from the county of Monmouth in New Jersey, supposed to be a native grape, long known there, growing usually on the banks of streams, an abundant bearer. Berries oblong, pale green or white, deemed delicious. The cuttings were distributed.—*Farmer and Mechanic.*

Steep for seeds.—We are requested to republish a steep for seeds which appeared in the Cultivator last fall from the Albany Cultivator. The following is the substance of the article.—Caution is necessary in trying steeps of powerful chemical substances.

"Soak garden seeds four hours in a solution of chloride of lime, to one gallon water." The writer observes that seeds which were soaked thus, came up some days sooner than those which were not soaked, and that the plants kept the lead through the season. One fourth of an ounce of chloride of lime to a gallon of water.

On the 10th of May 1845, I put cucumber, muskmelons, beet, summer savory and radish seeds, and corn, beans and peas into the solution let them soak for two hours, and planted immediately. Twenty-four hours after planting, I dug up some of the corn and peas, and found that their roots were from one to one and a half inches in lenght. In forty-eight hours the roots were three to four inches, and the spire one to one and a half in lenght. The precise day that they broke the ground I now forget.—My cucumbers and melons came up quick and well, and for the first time in my life. my beets were up before any weeds were started. Two or three of my neighbors have tried the experiment this year with the like good results.—*Boston Cultivator.*

Pomeranian Cabbage.—Last spring, says *J. E. Teschemacher*, in a recent communication to Hovey's Horticultural Magazine. Mr. H. Colman sent me from Paris a small quantity of cabbage seed, labelled: "given me as seed of a most extraordinary cabbage.—I have not seen it." This seed I distributed amongst many of my friends, and sowed some myself. When it first came up, the seedlings so much resembled those of the Couve tronchuda sowed in an adjoining patch, that I could not then tell the difference. The result is as follows. The cabbage is of the pine apple form, weighs from six to twelve or fifteen lbs. each, is the purest and sweetest vegetable of the tribe, and not a single plant of all mine, or those of my friends, failed forming fine hard, solid, heads.

One plant, of which the head was broken off soon after planting out, sent forth four shoots, each of which formed a fine solid head; the four weighed 12 1-2 pounds. It seems to me highly probable that it will take the place of the large drumhead, as four or five of these will grow in the same space as is required for two of the others; add to this, that the flavor is far superior, and the faculty of heading well, unfailing.

Although I have no name for it, I think it very probable that it is the Pomeranian Cabbage

just introduced into England or Scotland, where it met with much commendation.—*Farmers Cabinet.*

Preservation of Timber.—The Vermont Chronicle gives the following method of preserving timber which was communicated by A. A. Haynes, Esq., of Roxbury Laboratory, some time since. As many inquiries are being made in regard to the method of *kyanizing* timber it it will doubtless be acceptable to many of our readers.

"1st. Blue vitriol is the article used for preserving timber from atmospheric exposure. 2d. One lb. dissolved in 40 lbs. of water, gives a solution, in which the timber must be immersed *till it is saturated.* The saturation is observed by boring one of the sticks, boards or shingles. A moderate warmth greatly aids the penetration. 3d. It preserves all kinds of timber from rot, by taking up and rendering solid the albuminous juices, or sap.

The reports of the Railroad agents are full, in relation to trials continued now through five years under all exposures. All the unprepared timbers have been twice replaced, and the prepared timbers are all as sound as when first laid. The retail price of Blue Vitrol is from 8 to 9 cents per lb."

Peaches should be grown on the coldest part of the farm.—Orchards that are exposed do well while those secured from the north wind often fail.

While trees are young, they need particular attention as well as a child. Remove the buds that would form improper shoots and pruning will be unnecessary. The rough bark should be scraped from trees, and they should be washed. The following composition is good : 1 part plaster, 1 soft soap, 1 cow manure, applied with a brush. It should be used twice a year, when the flies are plenty laying their eggs on the trees. Hard soap was good to put on wounds made by pruning.

Some will not set trees lest they shall not live to eat of their fruit. Why not set trees for their children, as well as to lay up money for them. And besides will not the setting of fruit trees add value to lands ?—*Cult.*

To keep Birds from Fruits.—The following plan, which I discovered by accident, is I think, perfectly efficacious. One of my servants having by chance broken a looking-glass, it occured to me that the broken pieces suspended by a string, so as to turn freely in every direction, would give the appearance of something moving about, which would alarm the birds. I accordingly tried the plan, and find that no bird not even the most fool-hardy of them (a nest of newly-fledged sparrows,) dare come near.

They had attacked my peas. On suspending a few bits of the looking-glass amongst them the marauders left the place. The tomtits attacked my socket pears (which they seemed very partial to;) a bit of looking-glass suspended in front of the tree put a stop to the mischief. My grapes were next much damaged before they were ripe, by thrushes and starlings ; a piece of looking-glass drove these away, and not a grape was touched afterwards. I have before tried many plans, but never found any so effective as the above.—*Corresp. of Gardener's Chronicle.*

Charcoal Beds for Melons.—We would say to our farming friends, if you have been burning charcoal during the past winter, be sure you fence up the site of your coal pits, as vine patches for cucumbers, squashes and melons. In these situations the insects are pretty much burned out of the soil, body, eggs, and all, and they will not eat up your vines as soon as these come out of the ground. The annihilation of worms and insects will enable your vines to get a start before flies and bugs, will be much abroad, the coal itself, furnishes one of the greatest constituents of vegetable existence. If, you have no such patches as we have referred to, a few loads of charcoal dust might be purchased from the nearest blacksmith's shop, or foundry, and used with profit in this culture.

Frost.—The following simple and easy method of securing fruit trees from the effects of frost we have seen highly recommended. Take a thick rope and entwine it among the branches of a fruit tree in blossom,the end of which should be directed downward, so as to terminate in a pail of water placed at the foot of the tree; should a slight frost take place during the night it will not in the smallest degree affect the tree, while the surface of the pail which receives the rope will be covered with a thin ice ; though water placed in another pail by the side of it, by the way of experiment, may not, from the slightness of the frost, have any ice on it at all. —In this case the rope aids the evaporation of the water, and thereby cools it down to the freezing point.

Horticulture.—There is probably no employment or recreation which has a stronger tendency to purify the heart, improve the taste, or strenghten the physical constitution, than a love of horticulture. If a man would truly enjoy his garden, take delight in his flowers, and appreciate his fruits, he must be his own gardener, prune his own trees, gravel his own walks, and cultivate his soil.

American Iron Best.—According to the New Jersey State Gazette, American railroad iron has been found to be better than English. The New Jersey Railroad Company have tried both, and found the American so much better that they ordered one thousand tons, of the Trenton Iron Company, at $61 per ton.

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MICHIGAN FARMR.

WARREN ISHAM, EDITOR.

PUBLISHED SEMI-MONTHLY—TERMS $1 IN ADVANCE—FIVE COPIES FOR $4.

Subsoiling at the first Plowing.

We remarked in our last No. in reply to an inquiry, that nearly every reason which could be adduced in favor of subsoiling at all, could be made available in favor of plowing deep the first time. Let us take a running glance at the reasons we gave a few numbers back, in favor of subsoil cultivation.

1st. It increases the tenacity of the surface soil, by mixing with it the more tenacious subsoil, thus rendering it less subject to evaporation on the one hand, and leaching, on the other. And is not this equally a reason for plowing deep the first time?

2d It gives room for the roo's to work their way downwards into the earth, beyond the reach of drought. And does not this reason hold good in the case before us?

3d. It facilitates the descent into the earth of the water from heavy rains, where it remains in deposit, to be drawn towards the surface in time of drought—water which would otherwise either stand upon the surface till evaporated, or run off into streams, carrying with it in solution, more or less of the various salts which constitute the elements of nutrition in the soil. And how is it with this reason?

4th It brings up and mixes with the surface soil certain mineral ingredients, which have a constant tendency to sink into the subsoil, particularly lime. There is not perhaps, quite as much necessity for plowing deep the first time, for this reason, as afterwards, yet it is beneficial, for even in new lands a greater proportion of these elements is found in the subsoil than in the surface soil.

5th. A loose porous soil is comparatively a non-conductor of heat, thus operating to prevent its penetrating, in some measure, into the earth in hot, dry weather, and also to prevent its escape in cold weather. And of course the deeper the soil is rendered loose and porous, the greater the advantage from this scource, whether at the first plowing or afterwards.

6th. Another advantage specified, was, that the labor and expense of cross-plowing, dragging &c. as preparatory to seeding, were saved. As cross-plowing is not regarded as advantageous to the first crop in this country, it may be thought, that here we find nothing to our present purpose. But though it be granted, that cross-plowing is not advantageous to the first crop, yet labor which is equivalent to it *in dragging is necessary*, and by deep plowing nearly or quite all this labor might be saved.

7th. We were about to give up the other advantage specified as entirely foreign to the point in question, viz., that deep plowing prevents the escape of the fertilizing properties of manures, by evaporation, but, upon reflection, we think we shall claim an advantage even here, though it be granted, that manuring is unnecessary and preposterous for the first crop. The surface soil contains, in various proportions, the same elements of nutrition which are supplied by manures, and these elements when exposed, are of course subject to the same laws of evaporation —hence, why is there not the same reason for covering them deep? By the same reason we mean the like in kind, not in degree.

8th. In addition to the above enumerated advantages of subsoil cultivation in the general, (to which we called the attention of our readers on a former occasion,) another occurs to us at this moment, viz., that it buries the seeds of weeds so deep, that they will give but little trouble to the growing crop, thus securing an increased yield, and in the cultivation of some crops, a considerable saving of labor. And this is a reason which, perhaps, we shall find it more difficult to press into service on the present occasion, than any of the preceeding.

But suppose the advantages of plowing deep the first time are not as numerous as those which result from subsequent subsoil cultivation—what then? How does that affect the merits of the case? Suppose there are ten good reasons why a man should not be hung, with nothing to offset against them, would you therefore hang him because there were a dozen reasons why some other man should not be hung?

But here comes up the objection, that plowing deep the first time, deposites such a depth of subsoil upon the surface soil, unmixed with the organic elements contained in the latter, that the effect cannot be otherwise than injurious to the growing crop. There seems to be some reason in this objection, and yet, we apprehend, that

upon a thorough investigation of the subject, it will not materially affect our conclusion.

In the first place, the same objection lies also against deep-plowing upon *old* lands, where the subsoil is turned upon the surface soil, as it sometimes is, to a considerable depth; but this is done, not only without injury, but with great benefit to the growing crop. In the next place suppose we admit, that it would be greatly advantageous for the surface soil to retain its superincumbent position, yet if this advantage is to be enjoyed at the expense of all the advantages above enumerated, it will be dearly purchased. If it could be enjoyed *together* with them, we should then have a combination of advantages, which would doubtless meet the objector's views exactly, as being in the highest degree favorable to the greatest possible results. And all these advantages are sometimes combined, one method of subsoiling consisting in turning over the surface soil, and only lossening the subsoil, without changing its relative position, and this can be done at the first plowing as well as afterwards.

But, as we said, we see not why turning the subsoil upon the surface soil, should affect the result any more on new lands than on old. And we have in mind an instance in point. We know a man in Jackson county, who has broken up a great many new farms, and who never allows his breaking to be done less than eight inches deep, and no man in that county raises better crops than he does, whether the first year or afterwards. The germinating plant, in the first stages of its growth, derives its principal nutriment from the elements which are stored in the seed, and the subsoil, such as we have in Michigan, contains more or less of the same elements, and after the formation of the first leaf, with the aid which will thus be rendered accessible from the carbonic acid of the atmosphere, the roots will not be long in penetrating downwards into the surface soil in search of food.

How deep it is desirable to plow the first time we are not competent to say, unless the subsoil be allowed to retain its position, and in that case we say, as we said in our last No. "plow as deep as possible." And even if the subsoil is turned over, we should apprehend but little danger of going too deep. We think there is more to be dreaded from a single one of the disadvantages of shallow plowing above enumerated, viz. exposure of the crop to the effects of drought than from plowing too deep. As a general thing very little rain falls in this country from June to September, and we have little doubt, that our wheat crop is generally cut short from one-fourth to one-third, from this cause.—There has moreover been but one season during the last ten years, when the yield of wheat was any thing like in proportion to the burden of straw, and the amount of heading. Every season besides, within that time, so far as our observation has extended, has brought with it, at thrashing time, disappointment to the hopes of the husbandman. And the season to which we allude, was characterized by an unusual quantity of rain, at least it was so in the section of the state in which we were at the time.

But we must stop. We have given our reasons, such as they are, in favor of plowing deep the first time. For aught we know there may be scores of reasons, which we know nothing of, to sustain the contrary. If so, let them be forth-coming. Don't be bashful, because the editor is against you. "To err is human," and editors are far enough from being exceptions.

Utility of Agricultural Science—Interesting Inference.

Nothing more fully and forcibly demonstrates the practical utility of agricultural science than the fact of the prevalence among cattle in old settled countries, of what is called "the bone disease." This disease consists in weakness of the bones, and of course a general prostration and decline. It is accompanied with a craving for old bones. The cause of it is, that certain elements (phosphates of lime and magnesia) which enter largely into the composition of bones, become exhausted from the soil, after a long series of years, having been removed in the shape of bones, and in the grain carried to market. This is proved, beyond all peradventure, by the fact, that bone dust is a sovereign remedy for the disease, restoring cattle affected with it to health in a few days. Bone dust, moreover, applied to the land thus exhausted restores it, and cattle again find in its products all the bone-forming elements they need.

Hence the necessity, in old countries, of manuring with bone dust, or something that is equivalent to it. Guano is a good substitute for it, as it contains largely the same elements.

How forcibly are we thus taught that plants,

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to be appropriate food for man or beast, must themselves be properly fed. A plant can no more assimilate elements, which are not within reach of its roots, nor its leaves, than a pig can assimilate provinder which is beyond the reach of its snout. Hence the importance of knowing what kind of food each particular plant requires and of placing it within reach of its roots.

And how emphatic the lesson here taught, that the whole race of man and of beast, *every living thing*, no less than the first man, is formed "from the dust of the earth." Every particle of matter which enters into the composition of every thing that has life, from the humblest vegetable that hangs upon the breast of the earth, up to Heaven's vice-gerent man, was once a component part either of the soil we tread under our feet, or of the atmosphere which floats upon its surface. The very "clods of the valley," nay, the very bones and the sacred dust that repose beneath them, yield to the transforming influences of chemical action, are sought out and taken up by the hungry roots of the growing plant, and compelled to obey the laws, not only of chemical action, but of life. Through the influence of the principle of life, the tendency to dissolution from the continued influence of chemical action, is stayed for a time, but the moment it ceases, chemical action again resumes its power, and the process of dissolution and decay goes on, and the very elements which had constituted the living organization, are again transformed into "the dust of the earth," and are again ready to be pressed into service.

These elements would seem to be totally unfit to serve as food for the animal organization, until they have been subjected to the laws of vegetable life. Man cannot take his *meals directly* from the dirt and the offal under his feet, but he actually does so *indirectly* and at second hand, the vegetable kingdom performing the intermediate and interesting drudgery of taking it up and cooking it for him—so to speak.

Never mind that.

There are many farmers of bunkum sense, and who have a great many things stored away in the chambers of their minds, which would be highly useful to their brother farmers, but who think they cannot write well enough to appear in print. But never mind that. Don't be too proud. Hope you don't want to make a dandy of yourself. And besides, we will take good care to provide you a dress which will be suitable for the occasion, "made to order, according to the latest fashion," should you stand in any such need, although it is our private opinion, that you would appear quite as well in your own homespun, possibly with a little editorial patching here and there.

Send along your Instalments.

There are a great number of very intelligent farmers in Michigan, who are constantly enjoying the benefit of the communications of their brother farmers through the columns of the Farmer, but who have not themselves contributed any thing to the general fund. Now this is a violation of the compact—the terms of which are that the farmers of Michigan "put their heads together and tell each other what they know," so that each one can have the benefit of what all the rest know, and their knowledge become his knowledge and his knowledge their knowledge. A question may arise, whether those who fail to fulfil the stipulations of the compact, are fairly entitled to the benefits of the arrangement.

The Wheat Crop.—We continue to receive favorable accounts of the wheat crop from various and distant parts of the state. It is hardly time yet to make any very definite or certain calculations. The most that can be said is, that present appearances wear an encouraging aspect. And the chances for a remunerating *price* arising from the present and prospective condition of Europe, are equally flattering to the hopes of the farmer.

☞In our present number will be found two communications of special interest to wool growers, and those who would become such, the one setting forth most clearly the very great advantages to the farmer of wool depots, and the other demonstrating the profits of wool growing, and entering somewhat into the secrets of the art.

For the Michigan Farmer.

Various Inquiries. &c. &c.

Mr. Editor:—As the season for planting corn is near at hand; I wish through the Farmer to make an enquiry as to the best kind, time of planting, preparation of the seed &c.* I thiak I have seen in some Agricultural paper a receipt for preparing corn in a composition of tar and plaster. If there is such a thing as this I hope I may be informed on the subject. I farm it on a small scale, and most of my spring crop will be corn. I am much pleased with the Farmer. It will make a neat little volume, worth double the price.

One thing more, in the February number of the Farmer I noticed a communication over the signature of "*Otisco*" in which he mentions several remedies for destroying the striped bug;

amongst others he mentions the application of strong liquid manure. I would say that I have tried this for a number of years, and have always found it effectual. The manure of the sheep is best. It should be made about the thickness of paint, and applied to the young plants with an old broom, and repeated as often as washed off by the rain. This preparation, though "*rather green*," I have found quite too much for the *gents* in striped coats, and though a *rich* remedy, yet it is cheap, and though calculated to drive off or destroy, yet still it will give health and vigor.†

O. K. S.

OSHTEMA, Kalamazoo Co. April 9th, 1848.

Notes by the Editor.

* As to the best kind, there are various opinions. We have heard intelligent farmers who have tried various kinds, remark, however, that the common eight rowed yellow, was not excelled by any other variety. It is certainly sweeter and softer than the white flint. The dent variety is considerably cultivated in the southern portion of this state, especially upon the prairies and bottom lands. Being more easily masticated, than any other variety cultivated among us, it is preferred for feed. If we mistake not, it is some two weeks later in coming to maturity, than the other kinds. We think it is reputed to yield something more than the usual kinds.

In regard to the *time* of planting, we may remark, that corn planted any time in the month of May, will generally come to maturity in this climate, before the fall frosts, and we have had a good crop, that matured well, which was planted on the 10th of June. The *proper time*, however, for planting in this latitude, is about the 10th of May, and some seasons we should not hesitate to plant on the very first of that month. Some are in the habit of deferring their planting, in the fear that their corn would be cut down by the frost, and that they would have their work to do over again, and we have known many instances in which farmers have planted their corn over and over, or plowed up their fields for other crops. And here we would say once for all, that, as a general thing, this is all needless labor. If your corn or potatoes should be cut down by the frost, you have but to wait a few days to see them again pushing their green heads above the surface of the ground, and after the lapse of a few days more, nobody would surmise, that anything had been the matter. We have seen these crops come forward in this manner the second and even the third time, and arrive at maturity in due season. It must be a very extraordinary frost to destroy the power of reproduction.

As to the preparation of the seed by steeping, opinions are various, some discarding all steeps, and others regarding them as highly important. A prescription for a steep that is highly recommended, will be found in another column. A steep consisting of a solution of copperas (2 lbs. copperas to warm soft water sufficient to cover a bushel of corn) is highly reccommended. A Pennsylvania Farmer writes in the Farmer's Cabinet, that the part of a field of corn, the seed for which was thus prepared, yielded 33 per cent more than the other part. He, however, mixed soft soap with it, about 2 quarts to the bushel, after taking it out of the copperas water, and then rolled it in plaster. Mr. Geo. Smith near Pontiac, informed us that he had made use of copperas with great benefit. A solution of the carbonate of Ammonia, is also highly recommended. We have heard of the prescription above alluded to, tar and plaster, being used with good effect, but we cannot speak definitely in relation to it. It would cost but little to give all these different prescriptions a trial on a small scale. The carbonate of ammonia is prepared by adding to one pound of it, sulphuric acid, oil of vitriol, diluted with ten or fifteen times its quantity of water, until the effervescence ceases. Sulphate of ammonia is the product. The solution may be sufficiently diluted with water to afford a steep for a bushel of corn. All these materials are kept in every drug shop: the cost is trifling.

† Otisco appears to be getting more credit than he claimed for his remedies.

☞ Just as our paper was going to press we met with the following prescription for preparing seed corn with tar and plaster, which will meet the inquiry of "O. K. S." Pour your seed corn into boiling water, enough to cover it, stir it quickly about four seconds, then pour in as much more cold water, let it stand 24 hours, pour off the water, and pour in warm water to warm the corn, then pour it off, and mix in the tar (a gill to a half bushel) a little warmed, stir it till every grain is glazed, and then stir in the plaster till every kernel is covered. This preparation is said to protect the corn from birds, squirrels and worms, and to give color and a vigorous growth to the plant, by an old farmer who has tried it with great success for twenty years.

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Letters from Hon. Jonathan Shearer.

For the Michigan Farmer.

Mr. Editor:—In answer to our friend from Kent county, on taking up trees in the fall, so far as my experience goes, on this subject, it will be cheerfully given. The best time to take up trees in the fall is as soon as the leaves are fairly dead; at the same time, the roots must not be suffered to freeze. If they do, the tree dies. Some eleven years since, I took up some trees about the middle of October, in the state of New York, and brought them to Plymouth, set them out, and they lived, and are doing well. I have known trees taken up much earlier than this, and live.

Dear Editor, while on the subject of trees, permit me to offer a word on shrubbery and its advantages.—The most successful practice with me in setting all kinds of trees, is to dig or spade a hole in the ground two feet deep and some four feet in distance, and after displacing the cold earth, collect good rich surface, cultivated and manured soil, full of life, and place a due proportion of it in the hole, or cavity, then dip the roots of the tree, in the water, place them on this earth, add in small quantities, the remainder of this rich earth, pressing it compactly around the roots, leaving the surface near the top, and around the tree, level and loose, to receive the rain, and placing three standards near the tree, with a little bark, wound around, to steady it. In this way of planting trees for over thirty years, I have never lost one, which had roots. One hundred trees set in this way, are worth more than two hundred set in the ordinary way. My time in this state has not permitted me to attend to this pleasant branch of business as much as formerly, in Massachusetts, and New York, although I have a good supply of various kinds of fruit trees coming on here. Through the persevering efforts of Mr. Jabez Warner of Plymouth, the fruit here will not suffer in comparison, for size and quality, with that of any town of my acquaintance.

The advantages of shade trees, around dwellings, are, that they protect from the heat of the summer sun, and inhale the vapors, arising from decomposed matter, adverse to animal health, but good for the tree, whose leaves serve as lungs in inhaling this matter, by which means the atmosphere is made more pure, and invigorating. The shrubbery, makes a pleasing retreat when sol pours down his noontide rays—and the house yard grove, may be so selected as to yield its flowery perfume and bending branches of summer and autuminal delicious fruits. These little things costing only the labor of a few hours; make home inviting, and amply pay the cost, with principal, and a large interest.

Very truly yours,

J. Shearer.

Plymouth April 19, 1848.

For the Michigan Farmer.

Plymouth April 19, 1848.

Mr. Isham.—Sir: As I have been occupied in business from my home in Plymouth, on a new farm in the county of Ingham, considerable of my time during the three past years, endeavoring to make two blades of wheat grow, where not one existed before, your very useful paper has not been conveniently received, and perused. The Cultivator, Genessee Farmer, and Michigan Farmer, in their first commencement, received my hearty support, with the understanding that their columns, should contain a good degree of original matter, from experimental farmers, and not to be clogged with time-worn extracts, introduced by those who did not know how to hold the plow, or drive. And your paper contains the true doctrine in this regard, therefore I send you one dollar for the paper and grant you all the aid, which my time will afford. The call in your last paper, has reference to me undoubtedly, but respecting that certain field of wheat there must be some mistake.*

At some convenient time, something may be said from experience, and by way of remembrance, on this great subject, in exchange of views with my brother farmers in general.

I was about to close, yet one idea more may be submitted for consideration.—Through the whole chain of nature, everthing has its natural enemy. The insect is the natural enemy of the wheat crop, and man would be its protector. But from his limited knowledge of the laws of nature, he as often favors the enemy, as he affords protection. The history of the past thirty years evidently shows to any practical farmer, who has made agriculture, *for that length of time*, his study, that a series of five or six years of early seeding, and about the same time in succession of late seeding have followed each other. This has been the history of wheat raising, throughout the region of my acquaintance, and what has been the cause of it? The answer is, that by a succession of early seeding, insects multiply, and by a succession of late seeding they decrease, but to offset against this, by too late seeding, the wheat is liable to smut and to rust.

It never has been my design to sow more

acres, than any body else or to sow earlier or later than any other person, but to prepare the soil, and seed, in a suitable manner, (an account of which at some future time may be related) being in readiness to commence on or about the 15th of September to seed, and finish if possible by the 25th of the same month, and by this mode my wheat has never suffered much with the ravages of insects. The large flint has been my seed for some twenty years past and no loss has been sustained of any consequence by smut.

With esteem, respectfully yours,

JONATHAN SHEARER.

P. S. It is worthy of notice, that when the excitement takes place in these *revolutions* of seeding *early*, that the old saying is realised, that the first will be last, and the last will be first.

J. SHEARER.

* No harm done, ED.

For the Michigan Farmer.

To the Farmers of Michigan.

Importance of Wool-growing.—In a young and rising commonwealth there is no division of labor so important to develope the resources and augment the wealth and prosperity of a state as rural economy. The raising of sheep is not the least important in this great branch of human industry. One hundred acres of well cultivated land in Michigan will furnish feed for 500 sheep: 300 is allowed amid the sterile mountains of New England. This number will require the labor of one man to tend them, and procure food. An ordinary flock will shear 3 lbs. per head. This clip, at 25 cents per lb. would amount to 375 dollars, to which add the increase, equal at least to 225 dollars, which would be a revenue of 600 dollars. When we take into consideration the large amount of capital invested in land and the wages of labor in the Eestern States, the net profits on the capital invested, is nearly as two to one in favor of the Michigan farmer.

The producer 200 miles in the interior, can market with a single team, 500 dollars worth of wool. There is no other commodity within the range of our productions, of which the same labor will transport to market over 50 dollars worth. Hence the distance from market, or isolated condition of a place, has but little influence upon the value of this product.

Attention to the *breed*, is of infinite importance to the successful introduction of this noble animal, as the profits from this great subdivision of human labor, may thus be essentially augmented. The Cotswell and Leicestershire breed are reputed to shear the heaviest fleece, but the wool is of inferior qualty. They are valuable for their mutton, weighing nearly three hundred lbs. They are of modern importation, and their value has not been fairly tested.

The Saxon & Mireno breeds are of world-wide reputation. They were imported some twenty or thirty years ago. By intermixing with the natives they have become acclimated, and stand the severity of a northern lattitude. By care on the part of wool-growers at the East, in selecting and crossing from the choicest flocks, breeding only from ewes of the heaviest and finest fleece, and most perfect model, these two varieties have acquired hardy and robust constitutions and they will average in the best flocks 5 lbs. of wool per head, double the amount of the inferior flocks, so that one half is saved by good selections.

Some of the best and most perfect models are found in the flocks of Jarvis, Jenison, and Jewett of Vermont, Peters, Arnold, and Baldwin of New York. They are held at from ten to twenty dollars per head. In selecting for breeding, the wool must not only be of a high degree of fineness, but must possess a constant and uniform character; that is, the weight must be in proportion to the length of the wool hair. This is an important prerequisite to a perfect sample of a thorough bred fleece.

According to the late census it appears, that there were in the United States in 1840 about 20 millions of sheep. The capital invested in this branch of husbandry, including land and labor, is about 125 millions of dollars. The revenue derived is about 12 millions, showing a fair remuneration for the capital invested.

Every citizen consumes at least 3 lbs. of wool annually. If our population equal 20 millions, we need for home consumption 100 million lbs. of wool, which is double the amount of the present product. Upon the hypothesis that none is exported, we require, to supply the home demand, twice the capital invested in this great source of national industry. If we can direct capital and labor in this channel, and produce a surplus, we can export and exchange it for other commodities which we need in return. The man who creates a new value is a benefactor to his country. He adds not only to his own resources, but to the national wealth. The surplus productions of labor enables the country to sell, which determines its ability to buy. No nation can long continue to import unless they export. The nation or individual that consumes imports must reproduce exports.

Our favored country has become the granary of the world, and we may yet clothe as well as feed starving Europe. "The exportation of surplus productions gives a spur to industry, and all desirable superfluities as well as necessaries are procured in return." MICHIGAN.

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From our Scientific Correspondent.

For the Michigan Farmer.

Loss of Manure.—No. III.

To show how much valuable manure is lost when the urine of the cattle is allowed to run to waste, we give the following analysis of its composition. Water, urea, mucus, hippuric and lactic acids, carbonic acid, ammonia, potash, soda, sulphuric acid, phosphoric acid, chlorine or the acid of common salt, lime, magnesia, alumina, oxide of iron, oxide of manganese, silica; every thing that a plant can need of inorganic materials, for healthy and luxuriant growth; as may be seen by the following analysis of wheat. 100,000 parts of dry wheat contains 1177 parts of inorganic matter; the same quantity of wheat straw contains 3518 parts of the same.

	Grain.	Straw.	Urine of the cow in 100,000 parts.
Potash,	225	20	664
Soda,	240	29	554
Lime,	96	240	65
Magnesia,	690	32	36
Alumina,	26	90	2
Silica,	400	2870	36
Sulphuric acid,	50	37	405
Phosphoric acid,	40	170	70
Chlorine,	10	30	272
	1777	3518	

For every barrel of urine lost, so many bushels of wheat are also lost. The only question to be decided by the practical farmer, is whether the cost of preparing cisterns, and carting to the land; or the value of the wheat and the improvement of the soil, is of the greatest importance. Urine is of far higher value, both intrinsically and in bulk, than dung.

The simplicity of the following remedy is greatly in its favor, allowing other things to be equal.

For the Michigan Farmer.

A Remedy for the Bleeding of the Grape Vine.

Mr. Editor:—It being desirable, sometimes to prune the grape vine at the season when it is subject to bleeding, it may be a matter of some interest to those concerned, to know a remedy. The following very simple expedient has recently come to my knowledge. Judge Bagley of Pontiac, pruned his grape vines, last season, at a time when they bled profusely. I tried, says the Judge, every means I could think of to stop their bleeding, but all without effect. A man who was passing at the time, observing my difficulty, said, I guess if you stick a potatoe on the end, it will stop it. Perhaps he had, before tried the experiment himself, or perhaps he was a yankee and good at guessing. Be that as it may, the Judge tried the potatoe and found it effectual. I have a few days since, tried the experiment on my own vines, and with the same successful result.

It would be well to sharpen the end of the vine, and with the point of the knife bore a hole in the potatoe of suitable size for the vine to enter.

Yours truly, Isaac W. Ruggles.

Pontiac April 24th, 1848.

NEW INVENTIONS.

Safety Apparatus for Steam Boilers.

Mr. Elkanah, of Providence, R. I., has recently patented an improvement to prevent explosions in steam boilers, which he describes in a letter to the American Cabinet, as follows:

"By an apparatus, simple in construction and easily applied, the steam, when at any given height, regulates, by its own action, both itself and the fire, so as to keep up uniformity of power so long as sufficient fuel remains under the boiler.

"With this improvement, as I have ascertained by actual experiment, if the pressure of the steam exceeds a given point, the safty valve opens, the drafts and flues close, and in a very short time, and before any injury can happen, the fires will be extinguished, no matter how great the quantity of fuel in combustion.

"By means of another apparatus, equally simple in construction and application, the boiler, will receive a regular and constant supply of water, which will always remain at the required height, so long as the machinery is in operation and when the water enters the boiler it is nearly or quite boiling hot. The water can be taken from almost any locality, and admitted into the boiler through valves without the use of pumps.

To Transfer Engravings to White Paper.—Place the engravings for a few seconds over iodine vapor. Dip a slip of white paper in a weak solution of starch, and when dry, in a weak solution of oil of vitrol. When dry, lay the slip upon the engraving and place them for a few minutes under a press. The engraving will thus be reproduced in all its delicacy and finish. The iodine has the property of fixing on the black parts or ink of the engraving, and not on the white. This important discovery is yet in its infancy.—*The Builder.*

Strange Invention.—The St. Louis papers give an account of a new invention for propelling steamboats, the propelling portion being made in the shape of a whale's tail, consisting of a complication of nicely adjusted springs, which being operated upon by a crank, are made to send the boat forward, just as a whale is sent through the deep by the motion of his tail. The boat is guided by means of fins attached to the sides. It is anticipated that a boat propelled in this way, will cross the Atlantic in four or five days. What next?

XUM

GENERAL INTELLIGENCE.

By Telegraph.—The steam propeller Sarah Sands, has arrived. Great excitement throughout France. The French election is posponed to the 23d of April. The convention meets the 4th of May.—All the banks of France have suspended specie payments by desire of the Provisional Government. The workmen of Lyons and other principal cities have revolted and seized the arsenals. La Presse is out against the Provisional Government. The French Government has issued a proclamation to the people and army, asking them to sustain order. It was supposed that France and Prussia would unite against Russia. Sardinia had repelled the Austrian troops. A Provisional Government is established at Vienna and Milan. The French government is charged with preparing an expedition to Poland and Belgium. A body of troops attempted entering Belgium to assist the revolution but were defeated with 400 loss. The Danes are preparing for war. Disturbances at Stockholm. Venice is about declaring itself a republic. Russia has sent large bodies of troops to near Obessa and Turkey. Poland is about to declare herself a republic. At Milan troops were being raised to fight Austria. The Austrian army had withdrawn to Lodi. Manesa has fallen into the hands of the Lombards. The Austrian General taken prisoner. Verona has proclaimed a republic. Outbreaks reported in Ireland. Clubs were drilling and arming themselves. A rifle company was fully armed, and men were wearing uniform in the streets of Dublin.

Liverpool.—Corn dull but demand better 26s a 30s. Of flour fresh arrivals offered at 6d lower, 27s a 28s. Wheat 2d per bushel lower.

Revolution at Home.—There are strong indications, says the Pittsburg Journal, of a revolt among the slaves in many parts of the South. The affair at Washington, had it been successful, no doubt would have been followed by a general uprising. We tremble in view of this danger to the peace of our own country. The Baltimore Sun says :—"The slaves in Cecil county, Md., are running away in droves. The Wilmington Chicken says: A week or two since eight made their escape from Mr. George Kidd, in this county ; and a week or so before, five run away from Messrs. Gales and Chamberlain. It was Mr Kidd's intention, we are informed, to free three of his slaves in a few days." Slave property on the borders of the free States is getting almost valuless.

Mexico.—Gen. Kearney has been installed as Governor of the State of VeraCruz. Mr. Sevier, the American Commissioner to negotiate the treaty of peace, left Vera Cruz for the city of Mexico on the 8th. Santa Anna took passage in the Spanish brig Martino, and once more turned his back on Mexico. It was not known whether he would land at Jamaica or Havana. The Monitor, a paper published in the city of Mexico, says that fifteen Deputies and three Senators are yet wanting to form a quorum, and the opinion varies as to the probable fate of the treaty.

☞Upon looking over the acts of the late Legislature, we find but few of general interest. We have already noticed the passage of the homestead exemption bill, and the veto of the bank bills. The former certainly shows progress in civilization. Hon. J. D. Pieree, of Calhoun Co. we believe, was the father of it. A fifth Judicial Circuit has been established, and Hon. Edward Mundy of Ann Arbor, appointed Judge, Mr. Lothrop of this city taking his place as attorney general. Joint resolutions to amend the Constitution so as to provide for single Representative Districts, and the election of Judges and other state officers by the people, were adopted. The County Court is established and its jurisdiction enlarged so as to embrace all cases. A bill was passed, excluding from circulation in this state the notes of all foreigh corporations, which will of course drive Canada money from among us. Plank road and mining Co. bills were passed in countless numbers, and about as many more in relation to the collection of taxes, &c. in which no one is interested except those who are immediately concerned.

A train of cars recently ran off the track near Canandaigua, instantly killing two persons, and severely wounding two or three others. A large number of vessels have been strewed along the shores of Lakes Erie and Michigan by the fury of the late storm, some of them a total loss. Among the wrecked on Lake Michigan, are the propellors Manhattan and Cleveland. On Lake Erie the Oregon had a narrow escape. Her pipes being blown away, and her rudder unshipped, she was at the mercy of the winds and waves for one dreadful night. Many chimnies were blown down at Chicago, and the steeple of the new Methodist Church was so racked, that it will have to be taken down.

The water was to be let into the Erie canal this day, May 1st. The water in the Lake at Buffalo, is said to be fifteen inches lower than it has been known to be for thirty years. The steamer Lexington got aground in the creek abreast the light house.

But little interest attaches to the proceedings of Congress since the modification of the treaty. The affairs of other countries are of more absorbing interest than our own just now.

☞In our price current in the present number, one item, the price of beef, is wrong. Cattle fit for slaughtering are now selling at from $5½ to $6½ per hundred.

XUM

How easy it is done sometimes.—Wm. Burnett, Esq., of Scio, writes us, that having been absent from home for some time, he had just seen the Farmer for the first time since the present volume commenced, and adds: "I saw the suggestion under your editorial, and immediately applied to a neighbor of mine who was sitting by, to subscribe for the Farmer, and enclosed I send you his and my subscription."

☞P. N. Girardin Esq. is about entering upon a general travelling agency, for the Michigan Farmer. We consider ourselves fortunate in securing the services of Mr. G. and we bespeak for him the kind regards, and friendly co operation of the friends of agricultural improvement wherever he may go.

☞ It gives us great pleasure to be able to say to the friends of the Farmer, that it has passed the crisis in triumph. It was deemed by many a bold and hazardous step to change it to a semi-monthly and raise the price all the way up to a dollar. But we determined on the experiment, "sink or swim," and the result shows the wisdom of the step. To some few the idea of paying a dollar, O it was dreadful, and they turned away from us. But the mass of our subscribers stood by us in the hour of trial, and appear to be well pleased, and now new accessions to our list are coming in from every quarter.—We entertain sanguine expectations, that we shall be able to make great improvements upon the Farmer at the commencement of another volume.

TERMS.—The Michigan Farmer is published at Detroit, twice a month, by Warren Isham, at one dollar a year in advance—after three months $1 25—after six months $1 50—after nine months $1 75. No subscription taken for less than one year, nor discontinued till all arrerages are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	$	a$4	60	Salt,	$1 25	a$1	50
Corn, bus.		a	44	Butter,	15	a	20
Oats,		a	31	Eggs, doz.			9
Rye,		31¼a	50	Hides, lb.	3	a	7
Barley,		56 a		Wood, cord,	2 25	a 2	50
Hogs, 100 lbs.	3 00	a 3	50	Wheat, bus.			90
Apples, bush		a 1	00	Hams, lb.	6	a	7
Potatoes,	35	a	50	Onions, bu.	41	a	50
Hay, ton,	8 00	a10	00	Cranberries,		a 1	25
Wool, lb.	22	a	28	Buckwheat 100 lbs.		1	50
Pig iron, ton,	35 00	a40	00	Indian meal, "		1	00
Coal, Leh.	11 00	a13	00	Beef, do	2 50	a 3	50
do Ohio,	4 00	a 5	00	Lard, lb. retail,			7
Peas, bu,		a	75	Honey.			10
Beans,	75	a	80	Apples, dried,		1	50
Beef, bbl.	5 00	a 6	00	Peaches, do		a 2	00
Pork,	8 00	a10	00	Clover seed, bu.		4	50
White fish,	6 00	a 7	00	Herd's grass do do		1	00
Trout,	5 50	a 6	50	Flax do			75
Cod fish, lb.	5	a	5¾	Lime, " bbl			75
Cheese,	6	a	8				

Printed by Garrett & Geiger, at their Job Printing establishment, corner of Jefferson and Woodward Avenues, over King's store, Detroit.

AT THE DETROIT NURSERY AND GARDEN, situated on the Chicago Road, one and a quarter miles from the Detroit City Hall, may be found a good stock of fruit, and ornamental trees and shrubbery.

We have very fine trees of all the best varieties of Pear, (both dwarf and standard,) Apple, Peach, Plum, Cherry, Nectarine, Apricot &c., which, together with a large assortment of ornamental trees and shrubbery will be sold as low as at the Eastern markets.

Orders left at the store of John Palmer and Co No. 108 Jefferson Avenue, or at the nursery, will be punctually attended to.

J. C. HOLMES.

Detroit April 7th 1848

Detroit Wool Depot.

In Atwater Street, back of the Michigan Exchange, formerly the storehouse of Gillet and Desnoyers.

THE undersigned will open a depot at the above mentioned place, and be prepared to receive from farmers their wool immediately after shearing. His plan will be similar to that of the Eastern depots, which have proved so satisfactory to both wool growers and manufacturers; that is, if lots of wool are of an even quality, and if the owner wishes, each man's clip will be kept and sold separately. If not even in quality, they will be thrown into sorts according to quality and condition. As soon as a sufficient quantity is collected, Eastern manufacturers will be invited to examine and purchase. No difficulty is anticipated in effecting prompt cash sales, at good rates, as the orders on wool depots from manufacturers, have hitherto generally outrun the supply. Wool may be delivered at the depot from wagons, or if sent by Railroad, will be taken by me from the carhouse, without expense or care to the owner. It will be sufficient for him to put his wool aboard the cars, taking a receipt for the same, mark the bales with his name, and consign them to the "Detroit Wool Depot," and all will be safe. Insurance will be effected on all lots as soon as arrived. All charges, *including insurance*, cartage, sorting, storage, shipping and for effecting sale, will be included in a commission of one and a half cents on the pound.

EARDLEY IVES.

Detroit March 27th, 1848.

REFERENCES.—E. P. Hastings, C. C. Trowbridge, B. F. .H Witherell, Z. Pitcher, M. D. M. Palmer, Shubael Conant.

Improved Railroad Portable Horse Powers, and Over-shot Threshing Machines and Separators.—Having sold upwards of seventy setts of the above celebrated machines the past season, and to many large farmers in this state, Vermont, Massachusetts, Michigan, Ohio, Illinois, Wisconsin, Canada, and with entire satisfaction in every case, the subscriber would call the particular attention of farmers and mechanics desiring such machines, before purchasing—as he is prepared to offer a better finished article, with some slight improvements, at a less price, than before—for full particulars, description, &c, see catalogue, furnished gratis at the warehouse, Number 10 and 12, Green street, Albany, or by mail to those desiring them. HORACE L. EMERY.

Abany March 16th, 1848.

PETERS'

BUFFALO WOOL DEPOT,

SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*, The Wool is thrown into 10 sorts: Merino wool being No. 1, the grades numbering down from 1 to 5: the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, ONE CENT PER POUND; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

☞All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.